

# Exhibit I

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
CIVIL ACTION NO. 1:23-CV-878

DEMOCRACY NORTH CAROLINA, et al., )  
 )  
Plaintiff, )  
 )  
vs. )  
 )  
ALAN HIRSCH, in his official )  
capacity as CHAIR OF THE STATE )  
BOARD OF ELECTIONS, et al., )  
 )  
Defendants. )

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REMOTE DEPOSITION OF  
JACOB M. GRUMBACH, PhD

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10:01 A.M. PACIFIC TIME

Tuesday, April 1, 2025

Morning Session

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By: Lisa Taylor, RPR

1 are you referring to particular age range of  
2 Americans?

3 A. I would say group categorization in  
4 societies is challenging and changes over time and  
5 space, but I think a good sharp definition around  
6 this could be the age 18 through 25, which does  
7 appear to be sort of what's legally contested in  
8 this case as a conceptualization.

9 But, again, measurement is difficult  
10 and measurement of, for example, racial groups in  
11 voting rights and civil rights law has been  
12 contentious for, you know, well over a century in  
13 American history, and drawing that sharp boundary  
14 can be challenging. Right?

15 So how -- you know, for example, the  
16 development of the category of Latino or Hispanic  
17 was a late 20th century development in the U.S. or  
18 the group boundaries around who constitutes a Black  
19 American in a civil rights case or things like that,  
20 how people dealing with racially mixed individuals  
21 and so forth, those boundaries are very difficult,  
22 but you kind of do have to create a sharp  
23 circumscription for a particular application.

24 And here I think a decent sharp  
25 circumscription would be 18 to 25, but I would

1 say -- would I fully reject a definition that is 18  
2 to 27 or 24? I would have to consider that against  
3 those other sort of measurement-based definitions.

4 Q. Okay. So why do you think 18 to 25 is  
5 a good sharp categorization of the term?

6 A. Right. Again, there are trade-offs in  
7 any of these definitions. We could imagine  
8 trade-offs in racial categorization that involve,  
9 you know, if you have any ancestors throughout, you  
10 know, 10 generations from a particular racial group,  
11 you are a member of that racial group or not.

12 Those are challenging sort of  
13 discussions that involved trade-offs of conceptually  
14 stretching the concept or lumping it in and  
15 sharpening it.

16 I think 18 to 25 creates a good  
17 balance here. People between 18 and 25,  
18 particularly when it comes to being a political  
19 community of relevance here, have a set of shared  
20 experiences, form a group consciousness and shared  
21 preferences and have a position within American  
22 politics and the political economy that political  
23 elites see pretty clearly and does involve that age  
24 range from 18 to 25 that you mentioned.

25 Like I said, I would not fully rule

IN THE UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA  
Case no. 1:23-CV-878

DEMOCRACY NORTH CAROLINA; NORTH )  
CAROLINA BLACK ALLIANCE; LEAGUE )  
OF WOMEN VOTERS OF NORTH )  
CAROLINA, )

Plaintiffs, )

vs. )

ALAN HIRSCH, in his official )  
capacity as CHAIR OF THE STATE )  
BOARD OF ELECTIONS; JEFF CARMON )  
III, in his official capacity )  
as SECRETARY OF THE STATE BOARD )  
OF ELECTIONS; STACY EGGERS IV, )  
in his official capacity as )  
MEMBER OF THE STATE BOARD OF )  
ELECTIONS; KEVIN LEWIS, in his )  
official capacity as MEMBER OF )  
THE STATE BOARD OF ELECTIONS; )  
SIOBHAN O'DUFFY MILLEN, in her )  
official capacity as MEMBER OF )  
THE STATE BOARD OF ELECTIONS; )  
KAREN BRINSON BELL, in her )  
official capacity as EXECUTIVE )  
DIRECTOR OF THE STATE BOARD OF )  
ELECTIONS; NORTH CAROLINA STATE )  
BOARD OF ELECTIONS, )

Defendants. )

REMOTE DEPOSITION OF

JACOB GRUMBACH, Ph.D.

AFTERNOON SESSION

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2:01 P.M. PACIFIC TIME

TUESDAY, APRIL 1, 2025

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By: Denise Myers Byrd, CSR 8340, RPR

1 more valuable to cast your ballot than  
2 overcoming those costs, right, that differ among  
3 people -- different types of people have more  
4 greater or lower costs based on, for example,  
5 residential mobility -- do you end up casting  
6 your ballot, yes or no, is about the relative  
7 cost and benefits.

8 And this is saying the cost of the  
9 registration stage tend to be higher for young  
10 Americans than for older Americans.

11 Q. Okay. And so what specifically are those costs  
12 for younger Americans that may differ?

13 A. So an example would be greater rates of  
14 residential mobility means you have to update  
15 your registration. That step constitutes  
16 probably the key consequential increase in cost  
17 for young voters and explains why a substantial  
18 number of young people do not vote.

19 Q. Okay. Other than residential mobility, are  
20 there any other costs that you can think of?

21 A. Yes. There are other costs related to sort of  
22 even -- this is also related to residential  
23 mobility, but something like campaign contact.  
24 If you are a frequent campaign donor or actively  
25 known, you know, business owner or something

1           you cite, do you recall supporting the notion  
2           that habits form when people vote?

3       A.    Supporting the notion that habits form when  
4           people vote.

5       Q.    Yes.

6       A.    I think it -- yeah, I would consider it  
7           supportive of that notion.

8       Q.    Okay. Does the study to your recollection also  
9           support the notion that habits are broken when  
10          people's votes are not counted due to an  
11          administrative issue?

12      A.    I don't -- it is my recollection that this study  
13          does not cover that.

14      Q.    And do you know -- do you recall whether  
15          North Carolina was one of the states that they  
16          analyzed in that study?

17      A.    I do not recall off the top of my head.

18      Q.    Let's flip ahead to paragraph 55. And here  
19          you're citing to that Miller study that we  
20          mentioned earlier to support the notion that an  
21          individual is less likely to vote in subsequent  
22          elections if that individual's ballot is  
23          rejected due to administrative procedure.

24                   Is this the only study that you're  
25          aware of that supports this statement?

1 A. To my -- that is the only study I can recall off  
2 the top of my head right now.

3 Q. Okay. We'll go ahead and introduce this as  
4 Exhibit 12.

5 (WHEREUPON, Exhibit 12 was marked for  
6 identification.)

7 BY ATTORNEY PENCOOK:

8 Q. Does this appear to be the Miller study that you  
9 cited?

10 A. Yes, sir.

11 Q. And it's entitled Restrictive Mail Voting Rules  
12 Burden Minority Voters: Evidence from Texas,  
13 right?

14 A. Correct.

15 Q. What is the main conclusion of this study?

16 A. I would say the main conclusion or finding, I  
17 would say for me the headline conclusion is  
18 probably the -- just the descriptive finding  
19 about ballot rejection rates in Texas in the  
20 2022 primary and sort of racial distribution of  
21 rejections, but for me the headline finding is  
22 the reduction of turnout in a subsequent  
23 election which they describe later in that  
24 abstract.

25 Q. But the focus of this study is Texas, correct?



1 A. Not the focus of that study. This is using  
2 Texas as a case to make a general point about  
3 what happens when there's a procedural rejection  
4 of somebody's ballot.

5 This is again the -- you know, social  
6 science we're trying to create generalized  
7 findings about things that happen in the world  
8 to understand if we took that and implemented it  
9 somewhere else what would happen, but the  
10 context geographically is Texas, absolutely.

11 Q. Was this a study about young voters?

12 A. It was not focused on young voters.

13 Q. Pages 3 and 4 discuss Texas SB 1. And is that  
14 the law that was the basis of the case study  
15 here?

16 A. Yes. So that was the policy that created this  
17 particular category of ballot rejections that  
18 then this study is focusing on those rates of  
19 rejection and their downstream effects, yes.

20 Q. And going off of at least what Professor Miller  
21 includes here, SB 1 seems like it was far  
22 broader in scope than SB 747 here in  
23 North Carolina. Is that fair?

24 ATTORNEY HENDRIKSEN: Objection.

25 THE WITNESS: Yeah, I'm not sure of the

1 relevance to this, but I would say I guess it's  
2 fair to say it's larger in scope than at least  
3 the provisions of SB 747 that I've focused on.

4 BY ATTORNEY PENCOOK:

5 Q. Just one example, this article says that SB 1  
6 banned 24-hour and drive-thru voting.

7 Did SB 747 do that?

8 A. That is not my understanding.

9 Q. And there's some discussion of the impact of  
10 SB 1 on the distribution and submission of  
11 absentee ballots, and specifically they note  
12 that Texas did not have permissive policies with  
13 respect to mail ballots even prior to SB 1. And  
14 as an example -- and this is bottom of page 3,  
15 onto page 4 -- they note that, for instance,  
16 while people 65 or older were allowed to cast  
17 mail ballots with no documented hardship, in  
18 order to receive a mail ballot, all other voters  
19 had to demonstrate absence from the jurisdiction  
20 or a documented illness or disability that would  
21 have made in-person voting difficult.

22 A. Correct.

23 Q. In North Carolina, we don't have those same  
24 restrictions, correct?

25 A. That's my understanding, that those restrictions

1 that you described are part of Texas's absentee  
2 ballot system.

3 Q. And SB 1 added ID requirements for voting by  
4 mail, requiring voters to submit either their  
5 state ID number or partial social security  
6 number on the application for mail ballots and  
7 then again on the underside of a ballot envelope  
8 flap upon submission.

9 Does SB 747 do anything like that?

10 A. Not in my understanding.

11 Q. In your report, the next sentence on  
12 paragraph 55 says, "The most likely causal  
13 mechanism here is that individuals whose ballots  
14 are rejected experience 'alienation from the  
15 political process.'"

16 And you're citing specifically to  
17 Miller page 28, correct?

18 A. Correct.

19 Q. I want to look at that statement in context. If  
20 we could pull up page 28 of the Miller report.

21 It states that -- are you there?

22 A. Yes, sir.

23 Q. It states:

24 "That their turnout should  
25 decline even upon receipt of a mail

1 ballot provides strong evidence that  
2 some level of alienation from the  
3 political process occurred when their  
4 ballot was rejected in March. Like  
5 individuals whose applications were  
6 rejected, voters whose ballots were  
7 rejected but did participate in the  
8 general switched to in-person options  
9 at marked rates."

10 Do you see that?

11 A. Yes, sir.

12 Q. Do you know based on this study whether the  
13 effect was different for young voters than any  
14 other voters?

15 A. I believe I do, and key to this is that it's  
16 very difficult to generalize from these Texas  
17 post SB 1 mail voting and pre SB 1 mail voting,  
18 young people in Texas, because of the particular  
19 excuse submission that you have to do to become  
20 eligible for mail voting in Texas, this means  
21 it's a very selected group of individuals who go  
22 through that process.

23 So comparisons across younger versus  
24 older groups where everybody who's older becomes  
25 more greatly eligible in Texas for absentee

1 voting. Because of that, it's really hard to  
2 generalize across groups within this study, but  
3 rather, this study instead just shows that, yes,  
4 including young people, but also non-young  
5 people and people of different racial groups get  
6 discouraged when their ballot is procedurally  
7 rejected.

8 It is really hard to infer differences  
9 in the effect of that discouragement across  
10 groups from this study because of the  
11 particularities that are relevant in absentee  
12 permission in Texas.

13 Q. On page 27 of that article, it says -- first  
14 sentence of the last paragraph:

15 "We also argue that a ballot  
16 rejection reduced turnout by 1.5  
17 points."

18 Is that -- in your opinion, is that a  
19 significant reduction in turnout?

20 A. Statistical significance is related to but not  
21 defined by an effect size like that so I  
22 can't -- statistically significant I cannot  
23 determine, but I believe elsewhere in the paper  
24 they show it's statistically significant. That  
25 also has to do with its uncertainty.

1 But in terms of substance, they're  
2 concluding in that paragraph, as experts in the  
3 author, they say the magnitudes of that effect  
4 1.5 is smaller than earlier effects they're  
5 talking about from this but is in some ways more  
6 striking. That suggests they think of it as  
7 substantively important. That's different than  
8 statistical significance which we can check  
9 elsewhere in the paper.

10 Q. Okay. Are you aware of -- so when we're talking  
11 about ballot rejections in this study, the  
12 ballot rejection occurred at the primary  
13 election and then we're observing the effects  
14 onto the general election in the same year,  
15 correct?

16 A. Correct.

17 Q. Do you know whether this study controlled for  
18 whether a voter was in a district where there  
19 was only one candidate on the ballot that they  
20 maybe cared about or an area that sort of leans  
21 heavily one side or another?

22 A. You know, I actually do think, first, that the  
23 research design here already kind of accounts  
24 for that because it's looking at changes within  
25 an individual, right. So already baked in is

1 that individuals in uncompetitive primary  
2 districts are less likely to try to vote in that  
3 primary, so that is kind of controlled for in  
4 this way.

5 At the same time, I would like to look  
6 through their supplemental appendices, which is  
7 very long last time I looked at this paper, and  
8 there may be some, you know, direct addressing  
9 of that question, but generally, in this type of  
10 before-and-after design, it kind of accounts  
11 for -- it's about changes in voting within an  
12 individual who's in the same district so it kind  
13 of accounts for that.

14 Q. And then the last paragraph -- we're done with  
15 the Miller report. You can set that to the  
16 side.

17 The last paragraph in your report  
18 before conclusions, you sort of end this section  
19 by saying that creating new barriers, even a  
20 minor one, can have lasting consequences for  
21 those who have not yet developed voting as a  
22 habit.

23 I'm just curious why you qualified the  
24 statement here as new barriers, even minor ones.

25 Why did you include that language?

1 A. I think the cost of voting can be increased in  
2 large or small ways or decreased in large or  
3 small ways, and they affect different  
4 individuals differently. And I think some  
5 people -- you know, a change like in the mail  
6 verification procedures of SB 747, it may affect  
7 some young people greatly and some young people  
8 very little.

9 The point is for people that are in a  
10 perfect storm where it does affect them and put  
11 their cost of voting above a threshold where  
12 it's discouraging, that can have lasting  
13 effects. It can also have lasting effects on  
14 people's feelings of political inclusion. Even  
15 if they successfully cast their ballot but they  
16 perceive it being burdensome can generate  
17 feelings of political alienation and exclusion  
18 that I don't talk about as clearly in this  
19 report but as a general political science  
20 finding.

21 Q. Do you have any opinions about whether the  
22 changes caused by 747 are minor barriers?

23 A. You know, I would say in the grand scheme, it  
24 depends on what the comparison is which is way  
25 before lunch we talked about a comparison prior



1 to the 19th Amendment, you know, Jim Crow  
2 disenfranchisement, not even in the same league,  
3 right, then compared to as we talked about it's  
4 not as big as abolishing the entire SDR program,  
5 certainly not, but I would say it's important,  
6 right. Certainly larger than other things in  
7 other contexts that have affected the cost of  
8 voting and minor in big ways, relocations of  
9 polling places, all types of election  
10 administration based changes.

11 The fact that, you know, weather shuts  
12 down polling places and lines become longer and  
13 alternative, just all types of things that  
14 affect the cost of voting, we can compare them.

15 I would say SB 747's provisions  
16 increased the cost of registration in a way  
17 disproportionally among young North Carolinians  
18 and that that's important.

19 Q. Okay. I want to pull up another exhibit. This  
20 is going to be Exhibit 13.

21 (WHEREUPON, Exhibit 13 was marked for  
22 identification.)

23 BY ATTORNEY PENCOOK:

24 Q. Let me know when you've got it pulled up.

25 A. Great.